Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2. The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 24511 was prepared by Technical Committee ISO/TC 224, *Service activities relating to drinking water supply systems and wastewater systems - Quality criteria of the service and performance indicators*.

ISO 24511 is one of a series of standards addressing water services. The full series consists of the following International Standards:

- — ISO 24510, *Activities relating to drinking water and wastewater services — Guidelines for the assessment and for the improvement of the service to users*
- — ISO 24511, *Activities relating to drinking water and wastewater services — Guidelines for the management of wastewater utilities and for the assessment of wastewater services*
- — ISO 24512, *Activities relating to drinking water and wastewater services — Guidelines for the management of drinking water utilities and for the assessment of drinking water services*

Introduction

NOTE Words in bold are key terms which are defined in Clause 2.

0.1 Water issues: global context and policies framework

Water constitutes a worldwide challenge for the 21st century, both in terms of the **management** of available water resources and the provision of access to **drinking water** and sanitation for the world's population. In 2000, the United Nations (UN) recognized that access to water is an essential human right, and in conjunction with national governments, it set ambitious goals (the "Millennium Development Goals") to increase access to **drinking water** and **wastewater services,** including safe disposal or reuse of **residues** (hereinafter jointly referred to as "water **services**"), particularly in

developing countries. International conferences on **sustainable development** and water (e.g. the World Summit on Sustainable Development in Johannesburg in September 2002, the third World Water Forum in Kyoto in March 2003 and the fourth World Water Forum in Mexico City in March 2006) have highlighted this issue, and UN agencies (including WHO and UNESCO) have developed recommendations and programmes to establish a framework in which to advance.
The United Nations' Commission on Sustainable Development (CSD13) has emphasised that governments (referred to as "**relevant authorities**" in this International Standard) have a primary role in promoting improved access to safe **drinking water** and basic sanitation through improved governance at all levels and appropriate enabling **environments** and regulatory frameworks, with the active involvement of all **stakeholders**. This **process** should incorporate institutional solutions to make the water sector more productive and the **management** of water resources more sustainable. In this respect, the Ministerial declarations from the Third and Fourth World Water Forum recommended that governments endeavour to reinforce the role of parliaments and local public authorities, particularly with regard to the provision of adequate water **services**, and recognized that an effective collaboration with and between these actors is a key factor for meeting water-related challenges and goals.
Examples of key issues for efficient **drinking water** and sanitation services policy frameworks are:

- — clear definition of the roles of the different **stakeholders**;
- — definition of sanitary rules and organization for **assessment** of compliance;
- — processes to assure consistency between the policies regarding urban development and **water utility infrastructure**;
- — regulation for water withdrawal and **wastewater** discharge;
- — information to the **users** and to the **communities**.

0.2 Water utilities: general objectives

In addition to public health protection, sound **management** of the **drinking water** and **wastewater utilities** (hereinafter jointly referred to as "**water utilities**") is an essential element of integrated water resources **management**. When applied to these utilities, sound **management** practices will contribute, both quantitatively and qualitatively, to **sustainable development**. Sound utility **management** also contributes to social cohesion and economic development of the **communities** served, because the **quality** and **efficiency** of water **services** have implications for virtually all activities of society.
As water is considered a "social good" and activities related to water **services** support the three aspects (economic, social and environmental) of **sustainable development**: it is logical that the **management** of **water utilities** be transparent to and inclusive of all **stakeholders** identified in accordance with the local context.
There is a broad array of types of **stakeholders** that can play a role in activities related to water **services**.
Examples of such **stakeholders** include:

- — governments or public agencies (international, national, regional or local) acting with legal or legislative authority;

- — associations of the utilities themselves (e.g. international, regional/multinational and national **drinking water** or **wastewater** associations;
- — autonomous bodies seeking to play an overview role (e.g. organizations concerned, such as non-governmental organizations);
- — **users** and associations of water **users**.

The relationships between **stakeholders** and **water utilities** vary around the world. In many countries, there are bodies that have responsibility (in whole or in part) for overseeing the activities related to water **services**, whether the utilities are publicly or privately owned or operated and whether they are regulated by **relevant authorities** or acting in a system of technical self-regulation. Standardization and technical self-regulation are possible ways of ensuring involvement of all **stakeholders** and meeting the subsidiarity principle.

The aim of **water utilities** is logically to offer **services** to everybody in the area of responsibility of the utility, and to provide **users** with a continuous supply of **drinking water** and the collection and treatment of **wastewater**, under economic and social conditions that are acceptable to the **users** and to the utility. **Water utilities** are expected to meet the requirements of **relevant authorities** and the expectations specified by the **responsible bodies** in conjunction with the other **stakeholders**, while ensuring the long-term sustainability of the service. In a context of scarcity of resources, including financial resources, it is advisable that the investments made in installations be appropriate and that necessary attention be paid to proper maintenance and effective use of the installations. It is advisable that water **tariffs** generally aim at meeting cost-recovery principles and at promoting **efficiency** in the use of the resources, while striving to maintain affordable basic access to water **services**.

It is advisable that the **stakeholders** be involved in both setting **service** objectives and assessing the adequacy and **efficiency** of **service.**

0.3 Objectives, content and implementation of this International Standard

The objective of this International Standard is to provide the relevant **stakeholders** with guidelines for assessing and improving the **service** to **users**, and with guidance for managing **water utilities**, consistent with the overarching goals set by the **relevant authorities** and by the international intergovernmental organizations noted above. This International Standard is intended to facilitate dialogue between the **stakeholders**, enabling them to develop a mutual understanding of the functions and tasks that fall within the scope of **water utilities**.

The series of standards addressing water services consists of ISO 24510 (**service**-oriented), this International Standard and ISO 24512 (both **management**-oriented).

ISO 24510 addresses the following topics:

- — a brief description of the components of the **service** relating to the **users**;
- — core objectives for the **service**, with respect to **users**' needs and expectations;
- — guidelines for satisfying **users**' needs and expectations;
- — **assessment** criteria for **service to users** in accordance with the provided guidelines;

- — examples of **performance indicators** linked to the **assessment** criteria that can be used for assessing the **performance** of the **service.**

This International Standard and ISO 24512 address the following topics:

- — a brief description of the physical/infrastructural and managerial/institutional components of **water utilities**;
- — core objectives for **water utilities**, considered to be globally relevant at the broadest level;
- — guidelines for the **management** of the **water utilities**;
- — guidelines for the **assessment** of the water **services** with **service assessment** criteria related to the objectives, and **performance indicators** linked to these criteria.

The **performance indicators** presented in this International Standard, ISO 24510 and ISO 24512 are simply for purposes of illustration, because assessing the **service** to **users** cannot be reduced to a single or universal set of **performance indicators**.

The scope formally excludes the installations inside a user's premises. However, attention is drawn to the fact that the **quality** of the supplied water (or discharged **wastewater**) can be adversely impacted between the **point-of-delivery** (or, in the case of wastewater, the **point-of-collection)**, and the **point-of-use** (or, in case of wastewater, the **point-of-discharge**) by the installations inside the premises. Some **stakeholders**, e.g. **relevant authorities**, owners, contractors and **users,** can have a role to play regarding this issue.

Because the organization of **water utilities** falls within a legal and institutional framework specific to each country, this International Standard does not prescribe the respective roles of various **stakeholders**, nor does it define required internal organizations for local, regional or national bodies that can be involved in the provision of water **services**. In particular, this International Standard does not interfere with the free choice of the **responsible bodies** regarding the general organization and the **management** of their **utilities**. This International Standard is applicable to publicly and privately owned and operated **utilities** alike, and does not favour any particular ownership or operational model.

The guidelines given in this International Standard, ISO 24510 and ISO 24512 focus on **users'** needs and expectations and on the water **services** themselves, without imposing a means of meeting those needs and expectations, the aim being to permit the broadest possible use of this International Standard, ISO 24510 and ISO 24512 while respecting the cultural, socio-economic, climatic, health and legislative characteristics of the different countries and regions of the world. It should therefore be understood that, in the short term, it might not always be possible to meet the expectations of local **users**. This can be due to factors such as climate conditions, resource availability and difficulties relating to the economic sustainability of the water **services**, particularly regarding financing and the **users'** ability to pay for improvements. These conditions can limit the achievement of some objectives or restrict the implementation of some recommendations in developing countries. However, this International Standard is drafted with such constraints in mind and, for example, allows for differing levels of fixed networks and the need for on-site alternatives. Notwithstanding the need for flexibility in terms of engineering and hardware, many recommendations in this International Standard, such as consultation mechanisms, are intended to apply universally.

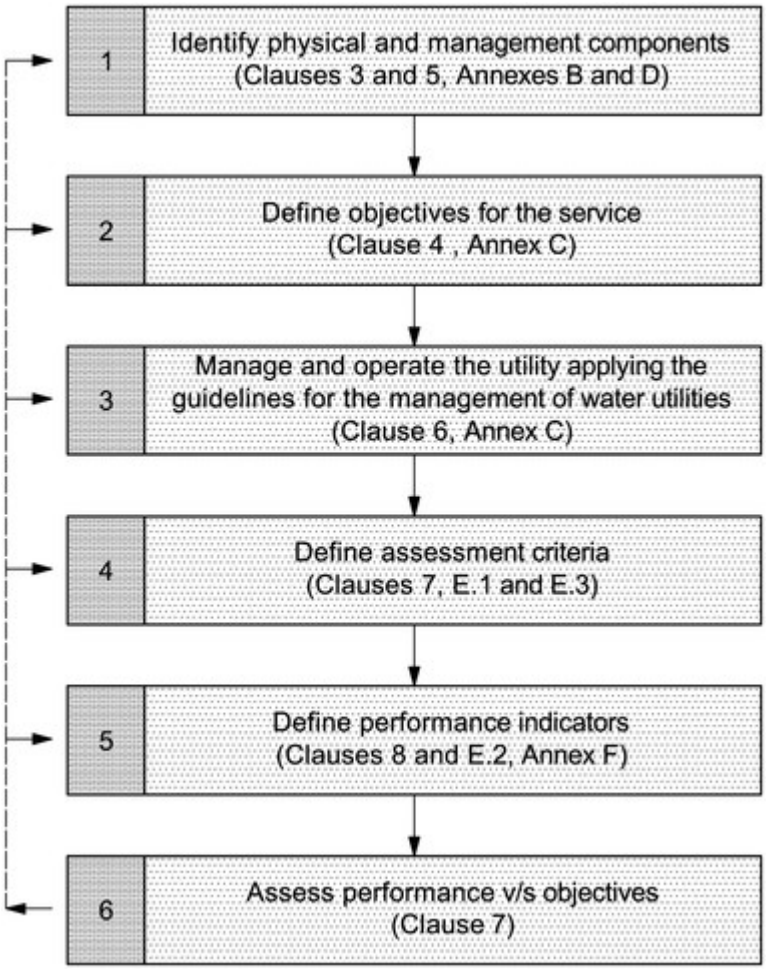
In order to assess and improve the **service to users** and to ensure proper monitoring of the improvements, an appropriate number of **performance indicators (PIs)** or other methods for checking compliance with **requirements** can be established. The use of **PIs** is only one of the possible support tools for continuous improvement. Stakeholders can select **PIs** from the examples given or develop other relevant **PIs**, taking into account the principles described in this International Standard, ISO 24510 and ISO 24512. The **PIs** logically relate to the objectives for which they are defined through the **assessment** criteria, and are used to measure **performance**. They can also be used to set required or targeted values. This International Standard does not impose any specific **indicator** or any minimum value or **performance** range. It respects the principle of adaptability to local contexts, facilitating local implementation.

While it is in no way intended that this International Standard, ISO 24510 and ISO 24512, and more specifically the **performance indicators** given as examples, be considered as a prerequisite or condition for the implementation of a water policy or for the financing of projects or programmes, they can serve to assess progress towards policy goals and the objectives of financing programmes.

The objective of this International Standard, ISO 24510 and ISO 24512 is not to lay down systems of specifications supporting direct certification of conformity, but to provide guidelines for the continuous improvement and for the **assessment** of the **service**. Use of this International Standard, ISO 24510 and ISO 24512 is voluntary, in accordance with ISO rules.

This International Standard, ISO 24510 and ISO 24512 are consistent with the principle of the “plan-do-check-act” (PDCA) approach: they propose a step-by-step process, from identifying the components and defining the objectives of the utility to establishing **performance indicators**, with a loop back to the objectives and to the **management**, after having assessed the **performances**. Figure 1 summarizes the content and application of this International Standard. Implementation of this International Standard, ISO 24510 and ISO 24512 does not depend upon adoption of the ISO 9000 series and/or the ISO 14000 series of standards. Nevertheless, this International Standard, ISO 24510 and ISO 24512 are consistent with those **management systems** standards. Implementation of an overall ISO 9001 and/or ISO 14001 **management system** can facilitate the implementation of the guidelines contained within this International Standard, ISO 24510 and ISO 24512; conversely, these guidelines can help to achieve the technical provisions of ISO 9001 and ISO 14001 for organizations choosing to implement them.

Figure 1 — Content and application of this International Standard



0.4 Wastewater services

Wastewater systems are built and operated mainly to protect public health and the **environment**. The type of **wastewater system** needs to be chosen and adapted in context with the density of the population, climatic conditions, environmental **requirements** for treatment and the technical/socio-economical ability of the **responsible body** to implement it, operate it and maintain it. It needs to be cost effective and sustainable, as well as permitting phased development to overcome the financial constraints while not compromising the stated objectives.

Operationally, the broad objectives of a utility are to provide **wastewater** collection **services** on a continuous or at least intermittent basis (depending on the service mechanism chosen), meeting the related capacity **requirements**. Methods of **wastewater** treatment and/or disposal need to correspond to the chosen collection system.

Appropriately treated **wastewater** is eventually returned to the **environment** and can have significant impact on both quantity and **quality** of natural water resources.

Effective and safe management of **residues** resulting from **wastewater** treatment, including their final disposal or reuse, is becoming increasingly important due to concerns about both environmental protection and resource conservation.

Since it often has a lifetime stretching over several human generations, **wastewater infrastructure** needs to demonstrate intergenerational equity. Consequently, a **wastewater utility**, regardless of ownership, is public in nature and will be subject to public scrutiny and policy. Other criteria, such as cost/**affordability** and **service** sustainability, are addressed in appropriate clauses of this International Standard.

1 Scope

This International Standard provides guidelines for the management of wastewater utilities and for the assessment of wastewater services.
This International Standard is applicable to publicly and privately owned and operated wastewater utilities, but does not favour any particular ownership or operational model.

NOTE 1 Wastewater is always generated when water is used or consumed. Accordingly, sources of wastewater can be residential, industrial, commercial or institutional. Collected storm water or (melted) snow can also be considered as wastewater, as it often carries contaminants and pathogens picked up from air or ground surfaces on its way to a collection system. In certain circumstances, especially in undeveloped areas, sanitary waste is collected in an undiluted form.

This International Standard addresses wastewater systems in their entirety and is applicable to systems at any level of development (e.g. pit latrines, on-site systems, networks, treatment facilities).
The following are within the scope of this International Standard:

- — the definition of a language common to different stakeholders;
- — objectives for the wastewater utility;
- — guidelines for the management of wastewater utilities;
- — service assessment criteria and related examples of performance indicators, all without setting any target values or thresholds.

The following are outside the scope of this International Standard:

- — methods of design and construction of wastewater systems;
- — regulation of the management structure and the methodology of wastewater service activities of operation and management;
- — regulation of the content of contracts or subcontracts;
- — topics related to the systems inside buildings, between the point-of-discharge and the point-of-collection.

NOTE 2 This International Standard, ISO 24510 and ISO 24512 comprise a series of standards addressing water services. It is therefore advisable to use these three International Standards in conjunction with each other.

NOTE 3 The list of terms and definitions in Clause 2 is common to this International Standard, ISO 24510 and ISO 24512.

NOTE 4 Annex A contains three tables of correspondence between equivalent terms in English, French and Spanish.

2 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

2.1

accuracy

closeness of agreement between a measure and the accepted reference value

Note 1 to entry: The term “accuracy”, when applied to a set of measures, involves a combination of random components and a common systematic error or bias component.

Note 2 to entry: Adapted from ISO 5725-1:1994.

2.2

affordability

ability to be economically bearable for the users (2.50)

Note 1 to entry: The affordability can be estimated through the degree to which charges for services (2.44) can be paid by targeted social groups of users without significant adverse economic or social impact, taking into account allowances for subsidies and payment assistance programmes for low-income users.

2.3

assessment

process (2.31), or result of this process, comparing a specified subject matter to relevant references

2.4

asset

capital-forming goods used for the provision of the service (2.44)

Note 1 to entry: Assets can be tangible or intangible. Examples of tangible assets are: land, buildings, pipes, wells, tanks, treatment plants, equipment, hardware. Examples of intangible assets are: software, databases.

Note 2 to entry: Contrary to consumables, assets can be depreciated in accounting systems.

2.5

asset management

processes (2.31) that enable a water utility (2.53) to direct, control and optimize the provision, maintenance (2.19) and disposal of infrastructure (2.17)assets (2.4), including the necessary costs for specified performances (2.24), over their life-cycle

2.6

availability

extent to which the infrastructure (2.17), assets (2.4), resources and employees of a water utility (2.53) enable effective provision of services (2.44) to users (2.50) according to specified performances (2.24)

2.7

community

one or more natural or legal persons and, in accordance with national legislation or practice, their associations, organizations or groups, having interests in the area where the service (2.44) is provided

2.8

confidence grade

assessment (2.3) of the quality (2.32) in terms of accuracy (2.1) and reliability (2.37)

2.9

connection

set of physical components ensuring the link between a point-of-delivery (2.26) and the local water main or the point-of-collection (2.25) and the sewer

Note 1 to entry: For drinking water systems (2.12), the term “service pipe” is currently used, but the connection can include components other than the service pipe, such as valves, meters, etc.

Note 2 to entry: In English speaking countries, for wastewater systems (2.52), the term “drain” can also be used; the connection can also be equipped with ancillaries.

2.10

coverage

extent to which the assets (2.4) of a water utility (2.53) allow services (2.44) to users (2.50), within its defined area of responsibility

2.11

drinking water

water intended for human consumption

Note 1 to entry: Requirements (2.40) for drinking water quality (2.32) specifications are generally laid down by the national relevant authorities (2.36). Guidelines are established by the World Health Organization (WHO).

2.12

drinking water system

tangible assets (2.4) necessary for abstracting, treating, distributing or supplying drinking water (2.11)

2.13

effectiveness

extent to which planned activities are realized and planned results achieved

[SOURCE: ISO 9000:2005]

2.14

efficiency

relationship between the result achieved and the resources used

[SOURCE: ISO 9000:2005]

2.15

environment

surroundings in which an organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation

Note 1 to entry: Surroundings in this context extend from within an organization to the global system.

[SOURCE: ISO 14001:2004]

Note 2 to entry: For the application of this International Standard, environment is considered as a specific stakeholder (2.47). The interests of this specific stakeholder (2.47) can be represented by relevant authorities (2.36), by the communities (2.7) or by other groups, such as non-governmental organizations (NGOs).

2.16

indicator

parameter, or a value derived from parameters, which provides information about a subject matter with a significance extending beyond that directly associated with a parameter value

Note 1 to entry: Adapted from OECD works on “Core sets of indicators for environmental performance reviews”[9].

Note 2 to entry: Indicators can refer to context, conditions, means, activities or performances (2.24).

2.17

infrastructure

system of tangible fixed assets (2.4) needed for the operation of a water utility (2.53)

Note 1 to entry: Adapted from ISO 9000:2005.

Note 2 to entry: It may also be necessary for the water utility (2.53) to use technical equipment for transport which is not fixed (e.g. trucks, vans, bottles) on a permanent or occasional basis, or in emergency situations. It is advisable to reserve the term “infrastructure” for fixed equipment and installations.

2.18

interruption

situation where the service (2.44) is not available

Note 1 to entry: Interruptions can be planned or unplanned.

2.19

maintenance

combination of all technical, administrative and managerial actions during the life cycle of an asset (2.4) intended to retain it in, or restore it to, a state in which it can perform the required function

2.20

management

coordinated activities to direct and control an organization

Note 1 to entry: In English, the term “management” sometimes refers to people, i.e. a person or group of people with authority and responsibility for the conduct and control of an organization. When “management” is used in this sense, it should always be used with some form of qualifier to avoid confusion with the concept “management” defined above. For example, “management shall…” is deprecated whereas “top management shall…” is acceptable.

[SOURCE: ISO 9000:2005]

Note 2 to entry: The term “management” can be qualified by a specific domain it addresses. Examples are: public health management, environmental management, risk management, etc.

2.21

management system

system to establish policy and objectives and to achieve those objectives
[SOURCE: ISO 9000:2005]
Note 1 to entry: A management system of a water utility (2.53) can include different management systems, such as a quality (2.32) management system, a financial management system or an environmental management system.
2.22
on-site system
set of physical assets (2.4) necessary for supplying drinking water (2.11) or collecting and treating wastewater (2.51) without physical connection (2.9) to centralized installations from a water utility (2.53)
2.23
operator
person or organization performing day-to-day processes (2.31) and activities necessary for the provision of the service (2.44)
Note 1 to entry: There can be one or several operators for a given water utility (2.53), e.g. distinct operators for installations operation, billing and recovering service (2.44). Their missions are determined by the responsible body (2.42). An operator may subcontract some of its operations to other contractors, if allowed by the responsible body.
Note 2 to entry: The operator(s) can be legally distinct, or not, from the responsible body (2.42). They can be public or private. Examples where responsible body and operator are not legally distinct: a technical department in a municipality, a specific division of a regional authority. Examples of legally distinct entities: a public organization, a private corporate company, a small contractor, an NGO, a cooperative.
Note 3 to entry: In the context of this International Standard, an “operator” is not a person employed within an organization to operate a piece of equipment or process (2.31).
2.24
performance
achievements of an activity, a process (2.31) or an organization
2.25
point-of-collection
physical fixed interface, upstream of which the water utility (2.53) does not have the overall legal responsibility for the service (2.44) or infrastructure (2.17)
EXAMPLE:
The limit boundary between private and public property.
Note 1 to entry: The point-of-collection is generally defined in the service agreement (2.45).
Note 2 to entry: In general, the water utility employees have no legal empowerment for obtaining direct physical access to the installations upstream of the point-of-collection.
2.26
point-of-delivery
physical fixed interface, downstream of which the water utility (2.53) does not have the overall legal responsibility for the service (2.44) or infrastructure (2.17)

EXAMPLE:
A connection (2.9) box, a meter, the limit boundary between public and private property.
Note 1 to entry: The point-of-delivery is generally defined in the service agreement (2.45).
Note 2 to entry: In general, water utility employees have no legal empowerment for obtaining direct physical access to the installations downstream of the point-of-delivery.
2.27
point-of-discharge
physical fixed interface where the user (2.50) normally discharges wastewater (2.51) for its collection and disposal
EXAMPLE:
A sink, a toilet.
2.28
point-of-use
physical fixed interface where the user (2.50) normally takes the water for the intended use
EXAMPLE:
A tap, a public drinking fountain.
Note 1 to entry: The point-of-use can be in private or public property.
Note 2 to entry: The point-of-use can be the same as the point-of-delivery (2.26), e.g. in the case of a public drinking fountain.
2.29
price
counterpart in money or alike paid for the supply or provision of a product or service (2.44)
Note 1 to entry: When relevant, price is expressed relating to a unit of product or service.
EXAMPLE:
Price of a cubic metre of drinking water (2.11), price of a connection (2.9) of xx metres in length.
2.30
procedure
specified way of carrying out an activity or a process (2.31)
Note 1 to entry: Procedures can be documented or undocumented.
2.31
process
set of interrelated or interacting activities which transforms inputs into outputs
[SOURCE: ISO 9000:2005]
2.32
quality
degree to which a set of inherent characteristics fulfils requirements (2.40)
[SOURCE: ISO 9000:2005]
Note 1 to entry: There is a clear distinction between quality of the product [drinking water (2.11) or treated wastewater (2.51)] and quality of the service (2.44). This International Standard does not give specifications for product quality.
2.33

rate of return
percent measure of project profitability, equal to project income divided by project investment
Note 1 to entry: The time period of measurement can be annual or over the lifetime of the investment.
2.34
registered user
customer
user (2.50) for whom relevant information is recorded by the responsible body (2.42) or operator (2.23)
Note 1 to entry: The term “customer” can be considered as a synonym, given that a customer has a commercial relationship, e.g. a service agreement (2.45), with the water utility (2.53). The term “customer” is currently used in such expressions as “customer relations”.
2.35
rehabilitation
operation on an infrastructure (2.17) that restores it to a defined level, or improves it to a higher level of performance (2.24)
2.36
relevant authority
public body entitled to set general policies, plans or requirements (2.40), or to check compliance with these rules, concerning all the water utilities (2.53) included in its area of jurisdiction
EXAMPLE:
National, regional or local governments, public agencies, regulators.
Note 1 to entry: For a given water utility, there can be several relevant authorities, which have jurisdiction in different domains.
2.37
reliability
degree of confidence in the information for representing or for qualifying the relevant subject matter
Note 1 to entry: Information can be data, indicators (2.16) or estimations.
2.38
reliability
probability that a device, system, or process (2.31) will perform its prescribed function without failure for a given time when operated correctly in a specified environment
2.39
repair
action on a non-conforming product, equipment or facility to make it acceptable for the intended use, but not changing the original parameters of the product, equipment or facility
Note 1 to entry: Adapted from ISO 9000:2005.
Note 2 to entry: Repair includes remedial action taken on a previously conforming product to restore it for use, e.g. as part of maintenance (2.19).
Note 3 to entry: Repair can affect or change parts of the non-conforming product.
Note 4 to entry: Repair can be planned [e.g. preventive maintenance (2.19)] or unplanned (e.g. in the case of damage).
2.40

requirement
need or expectation that is stated, generally implied or obligatory
[SOURCE: ISO 9000:2005]
Note 1 to entry: “Generally implied” means that it is custom or common practice for the drinking water or wastewater utilities, the users (2.50) of the service (2.44) and other interested parties, that the need or expectation under consideration is implied.
2.41
residues
subproducts resulting from the different processes (2.31) applied to drinking water (2.11) or wastewater (2.51)
Note 1 to entry: Residues can be liquid, solid, gaseous or mixtures.
EXAMPLE:
Sludge, septage, sand or grit, grease, debris.
2.42
responsible body
body that has the overall legal responsibility for providing drinking water (2.11) or wastewater (2.51)services (2.44) for a given geographic area
EXAMPLE:
A local or municipal government (i.e. for a village, town or city), a regional government, or a national or federal government through a specified agency, or a private company.
Note 1 to entry: The responsible body can be public or private.
Note 2 to entry: The responsible body acts within a framework of law and governance established by the relevant authorities (2.36); it generally establishes the strategy, the specific policies adapted to the characteristics of its area of responsibility and the general organization of the relevant water utility (2.53).
Note 3 to entry: The responsible body can operate the water utility directly with its own means through an internal **operator** [direct or internal management (2.20) or “in house”] or entrust one or several operators (2.23) for the operations (“outsourced” or contracted management).
2.43
restriction
situation where the service (2.44) does not meet the availability conditions specified in the service agreement (2.45)
Note 1 to entry: Restrictions can be planned or unplanned.
2.44
service
result of a process (2.31)
Note 1 to entry: Adapted from the definition of “product” in ISO 9000:2005.
Note 2 to entry: Services are one of the four generic categories of products with software, hardware and process materials. Many products comprise elements belonging to different generic product categories. Whether the product is then called “service” depends on the dominant element.

Note 3 to entry: Service is the result of at least one activity necessarily performed at the interface between the provider of the service and, in the first place, its user (2.50) and, in the second place, a stakeholder (2.47). Service is generally intangible. Provision of a service can involve for example the following:

- — activity performed on a tangible product supplied by the user, e.g. wastewater (2.51),
- — activity performed on an intangible product coming from the user, e.g. processing new connection (2.9) requests,
- — delivery of an intangible product, e.g. delivery of information,
- — creation of ambience for the user, e.g. reception offices.

Note 4 to entry: The word “service” in common English can also refer to the entity providing the actions related to the subject in question, as is implicit in such phrases as “bus service”, “police service”, “fire service” and “water or wastewater service”. In this context and usage, “service” implies the entity that is delivering the service, e.g. “the public transport of passengers”, “the provision of public security”, “fire protection and response”, and “delivering drinking water or collecting wastewater”. If “service” can be understood in this way, “water service” becomes synonymous with “**water utility**” (2.53); hence in this International Standard, in order to avoid confusion, only the definition in 2.44 applies.

2.45

service agreement

establishment of an accord between the registered user (2.50) and the water utility (2.53) on the conditions of service (2.44) provisions

EXAMPLE:

A contract.

Note 1 to entry: It may be implicit or explicit.

2.46

service area

local geographic area where an organization has the legal or contractual responsibility to provide a service (2.44)

Note 1 to entry: The service area can be established by political boundaries (e.g. citywide utility), by legislative action (e.g. formation of a utility district), or by interjurisdictional agreements [e.g. intercity agreements to provide wastewater (2.51) services].

2.47

stakeholder

person or group or organization having an interest in the performance (2.24) or success of an organization

EXAMPLE:

Users (2.50) and building owners, relevant authorities (2.36), responsible bodies (2.42), operators (2.23), employees of the operator, external product suppliers and providers of other services (2.44), contractors, communities (2.7), customers and environmental associations, financial institutions, scientific and technical organizations, laboratories.

Note 1 to entry: Adapted from the definition of “interested party” in ISO 9000:2005.
Note 2 to entry: For the application of this International Standard, environment (2.15) is considered as a specific stakeholder (see 2.15, Note 2).

2.48
sustainable development
development that meets the needs of the present generation without compromising the ability of future generations to meet their own needs

2.49
tariff
structured publicly available elements permitting calculation of the price (2.29) paid for a product or service (2.44)
EXAMPLE:
Flat (uniform) tariff for a cubic metre of drinking water (2.11), blocks with progressive or decreasing prices (2.29), prices of connections (2.9) depending on the pipe diameter.

2.50
user
person, group or organization that benefits from drinking water (2.11) delivery and related services (2.44), or from wastewater (2.51) service activities
Note 1 to entry: Users are a category of stakeholder (2.47).
Note 2 to entry: Users can belong to various economic sectors: domestic users, commerce, industry, tertiary activities, agriculture.
Note 3 to entry: The term “consumer” can also be used, but in most countries the term “user” is more frequent when referring to public services. It is not appropriate for wastewater services.

2.51
wastewater
water arising from any combination of domestic, industrial or commercial activities, surface runoff and any accidental sewer inflow/infiltration water and which can include collected storm water, discharged to the environment (2.15) or sewer
Note 1 to entry: The definition of wastewater in this International Standard also includes sanitary waste in undiluted form.
Note 2 to entry: Wastewater can flow in separate or combined sewer systems.

2.52
wastewater system
tangible assets (2.4) necessary for collecting, treating and disposing or reusing wastewater (2.51), as well as wastewater residues (2.41)

2.53
water utility
whole set of organization, processes (2.31), activities, means and resources necessary for abstracting, treating, distributing or supplying drinking water (2.11) or for collecting, treating and disposing of wastewater (2.51) and for providing the associated services (2.44)
Note 1 to entry: Some key features for a water utility are:

- — its mission, to provide drinking water services or wastewater services, or both:
- — its physical area of responsibility and the population within this area,
- — its responsible body (2.42),
- — the general organization with the function of operator (2.23) being carried out by the responsible body, or by legally distinct operator(s),
- — the type of physical systems used to provide the services, with various degrees of centralization.

Note 2 to entry: Drinking water utility addresses a utility dealing only with drinking water; wastewater utility addresses a utility dealing only with wastewater.

Note 3 to entry: When it is not necessary or it is difficult to make a distinction between responsible body and operator, the term “water utility” covers both.

Note 4 to entry: In common English, “water service” can be used as a synonym for “water utility” (see 2.44, Note 4), but this International Standard does not recommend using the term in this way.

Only informative sections of standards are publicly available. To view the full content, you will need to purchase the standard by clicking on the "Buy" button.

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